AMENDMENTS TO THE CLAIMS

1. (Currently amended) A system for providing wireless communication services to a plurality of wireless subscriber devices that are located in an aircraft, comprising:

aircraft network means located in said aircraft for generating radio frequency communication signals to communicate with at least one of said plurality of wireless subscriber devices that are located in said aircraft;

air-to-ground network means for radio frequency communications between said aircraft and a ground-based communications network system having at least one transceiver located on the ground; and

aircraft interface means for interconnecting said aircraft network means and said air-to-ground network means to establish communications between said plurality of wireless subscriber devices and said ground-based communications network by exchanging both subscriber traffic and at least one of network signaling and administrative data on separate concurrently available logical channels between said aircraft network means and said ground-based communications network, comprising:

data concentrator means for converting the subscriber traffic and signaling channels received from said plurality of wireless subscriber devices to an aggregate data stream; and

wherein said air-to-ground network means comprises:

data disaggregator means for converting the aggregate data stream received from said aircraft interface means into subscriber traffic and signaling channels for said ground-based communications network.

2. (Original) The system for providing wireless communication services of claim 1 wherein said aircraft network means comprises:

aircraft cellular communication means for establishing at least one cell site to communicate via communications with at least one of said plurality of wireless subscriber devices.

3. (Original) The system for providing wireless communication services of claim 2 wherein said aircraft cellular communication means comprises:

at least one base station means, each of which establishes a cell site to communicate via communications with at least one of said plurality of wireless subscriber devices.

4. (Original) The system for providing wireless communication services of claim 3 wherein said aircraft interface means comprises:

authentication means for verifying the identity of said plurality of wireless subscriber devices.

5. (Original) The system for providing wireless communication services of claim 3 wherein said aircraft interface means comprises:

authorization means for determining a set of services that each of said plurality of wireless communication devices is authorized to receive.

6. (Original) The system for providing wireless communication services of claim 3 wherein said air-to-ground network means comprises:

wireless subscriber device means, connected to said at least one base station means and responsive to receipt of radio frequency communication signals from a one of said plurality of wireless subscriber devices, for emulating operation of said one wireless subscriber device in communicating with said ground-based communications system.

7. (Original) The system for providing wireless communication services of claim 3 wherein said air-to-ground network means comprises:

transmitter means for generating downlink radio frequency signals for transmission to said at least one transceiver located on the ground;

receiver means for receiving uplink radio frequency signals received from said at least one transceiver located on the ground; and

antenna means located on an external surface of said aircraft for exchanging said downlink and uplink radio frequency signals between said transmitter and said receiver means and said at least one transceiver located on the ground.

8. (Previously presented) The system for providing wireless communication services of claim 2 wherein said aircraft cellular communication means comprises:

a plurality of base station means to communicate via communications with at least one of said plurality of wireless subscriber devices, each at least one of said plurality of base station means operating in a cellular technology that differs from those of the remaining ones of said plurality of base station means.

9. (Original) The system for providing wireless communication services of claim 8 wherein said aircraft interface means comprises:

data concentrator means for converting the individual traffic and signaling channels received from said plurality of base station means to an aggregate data stream.

10. (Previously presented) The system for providing wireless communication services of claim 9 wherein said air-to-ground network means comprises:

ground station controller means for mobility management and hand over management for said aggregate data stream, comprising subscriber traffic from said plurality of wireless subscriber devices.